

Safety Data Sheet

DATE : 02 : 01 : 2001


REVISION (see box 16)

ISSUE NO : 07

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

PRODUCT NAME	: DEADLINE LIQUID CONCENTRATE
DESCRIPTION	: A blue, rodenticidal liquid concentrate with no perceptible odour and a bittering additive. For professional use in the control of rats and mice after appropriate dilution with water or other suitable bait base.
COMPANY	: Rentokil Initial UK Ltd, Products Division, Felcourt, East Grinstead, West Sussex, RH19 2JY, England. Telephone: +44 (0)1342 833022 Facsimile: +44 (0)1342 326229. For latest issue see web: www.ri-research.com and click on Technical Information/Product Safety.

2. HAZARDS IDENTIFICATION

CLASSIFICATION (SUPPLY - Use): UK COPR (Control of Pesticides Regulations, 1986) / EC Directive 78/631.	DANGER SYMBOL (UK COPR): (Black on orange background)
X_n - HARMFUL : Harmful in contact with skin and if swallowed.	
SYMPTOMS AND EFFECTS (see also box 11): This product contains an anticoagulant compound. If ingested symptoms may include nose-bleed and bleeding gums. In severe cases there may be bruising, haematomas of the joints and blood present in the urine and faeces.	

3. COMPOSITION / INFORMATION ON INGREDIENT(S)

% w/w	COMMON*/CHEMICAL NAME AND CAS No OF INGREDIENT(S)
0.1	Bromadiolone* / 3-[3-(4-bromobiphenyl-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxycoumarin / [28772-56-7]
>50 ≤ 100	Monopropylene glycol* / Propane-1,2-diol / [000057-55-6]
≤ 2.5	Bitrex™ * / Denatonium benzoate / [3734-33-6]

4. FIRST-AID MEASURES (see also "symptoms and effects" in box 2)

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INHALATION (Breathing)	: Remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention.
EYE CONTACT	: Rinse affected eye with clean running water, or eyewash solution, for at least 15 minutes holding eyelids well apart. Rinse entire surface and do not allow run-off to contaminate unaffected eye. Seek medical attention.
SKIN CONTACT	: Remove and wash contaminated clothing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice.
INGESTION (Swallowing)	: Do NOT induce vomiting. If unconscious place in the recovery position and apply supportive measures if necessary. If conscious give patient up to 1 pint of water to drink. Seek medical attention.
EMERGENCY EQUIPMENT SUGGESTED	: Appropriate first-aid equipment should be provided. For the UK this should be in accordance with the Health & Safety (First-Aid) Regulations 1981. See also the Approved Code of Practice "First-aid at Work".
NOTE TO DOCTOR	: For further information contact the National Poisons Information Service in the UK.

5. FIRE-FIGHTING MEASURES

FIRE EXTINGUISHER - TYPES	: Use foam, water, carbon dioxide or dry powder extinguishers.
SPECIAL FIRE-FIGHTING PROCEDURES	: Wear self-contained breathing apparatus and suitable personal protective equipment.
SPECIAL EXPOSURE HAZARDS	: Combustion or thermal decomposition may evolve toxic and irritant vapours.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS (see also box 8)	: Wear suitable personal protective equipment.
PROCEDURE (see also box 13)	: Contain and absorb spill with an inert material such as sand, earth or sawdust. Transfer to a suitable container for subsequent disposal. DO NOT contaminate watercourses or ground.

7. HANDLING AND STORAGE (see also box 8)

HANDLING	: Avoid all contact by mouth. Wash hands and exposed skin before eating, drinking or smoking and after use.
STORAGE	: Store in original container in a cool, dry, ventilated place out of reach of children and away from food, drink and animal feeding stuffs.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (see also box 7)

OCCUPATIONAL EXPOSURE LIMITS	: OES for propane-1,2-diol for total (vapour and particulates) is 474 mg/m ³ long-term exposure (8 hour Time Weighted Average) and for particulates is 10 mg/m ³ long-term exposure (8 hour TWA).
ENGINEERING CONTROLS	: Where prevention of exposure is not reasonably practicable, adequate control of exposure should be achieved by engineering controls rather than the provision of personal protective equipment and clothing. Suitable and approved personal protective equipment and clothing may include the following item(s):
EYE PROTECTION	: None necessary under normal working conditions.
HAND PROTECTION	: Wear suitable hand protection such as synthetic rubber / PVC gloves.
SKIN PROTECTION	: Wear suitable skin protection such as coveralls.
BREATHING PROTECTION	: None necessary under normal working conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOUR	: A blue liquid concentrate with no perceptible odour.		
FLASH POINT	: Not applicable.	SOLUBILITY IN WATER	: Miscible.
FLAMMABILITY	: Non-flammable.	SOLUBILITY IN FAT	: Miscible with chloroform and acetone.
AUTOFLAMMABILITY	: Not applicable.	PARTITION COEFFICIENT	: Not applicable.
VAPOUR PRESSURE	: Not applicable.	BOILING POINT/RANGE	: Starts at ca. > 150°C
SPECIFIC GRAVITY	: 1.05 at 20°C.	MELTING POINT/RANGE	: Not applicable.
		pH	: Not applicable.
OXIDISING PROPERTIES	: None known.		
EXPLOSIVE PROPERTIES	: Explosive limits in air for monopropylene glycol: lower 2.6 %, upper 12.6%		
OTHER DATA	: None known.		

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID	: Avoid extremes of temperature, eg. below 0°C and above 40°C.
MATERIALS TO AVOID	: None known.
HAZARDOUS BREAKDOWN PRODUCTS	: Combustion or thermal decomposition may evolve toxic and irritant vapours.

11. TOXICOLOGICAL INFORMATION (see also box 2)

INHALATION	: Inhalation may cause irritation to the respiratory system. In severe cases the symptoms will be similar to those of ingestion.
INGESTION	: LD ₅₀ oral (rat) : for a similar product: males : 979 mg/kg, females : 765 mg/kg. If ingested symptoms may include nose-bleed and bleeding gums. In severe cases there may be bruising, haematomas of the joints and blood present in the urine and faeces.
SKIN CONTACT	: LD ₅₀ dermal (rat) : for a similar product: males : 1421 mg/kg, females : > 2000 mg/kg Not expected to be irritating to skin.
EYE CONTACT	: Not expected to be irritating to eyes.
CHRONIC EFFECTS (DUE TO LONG/REPEATED EXPOSURE)	: Chronic skin exposure may cause dermatitis. See also box 2 (symptoms and effects).

12. ECOLOGICAL INFORMATION

GENERAL INFORMATION	: DO NOT contaminate watercourses or ground.
ECOTOXICITY DATA	: The full ecotoxicological profile of this product has not been evaluated. Do not contaminate the environment. Product may be harmful to fish and other aquatic life. For bromadiolone (1% solution) : (96h) LC ₅₀ (rainbow trout) : 0.14 ml/l (96h) LC ₅₀ (bluegill sunfish) : 0.3 ml/l (48h) LC ₅₀ (<i>Daphnia Magna</i>) : 0.2 ml/l For Bitrex™ : Harmful to the environment at concentrations above 5 mg/l.
ENVIRONMENTAL CONSIDERATIONS	: The bromadiolone and Bitrex™ in this product are classified as toxic and harmful to the aquatic environment, may cause long-term adverse effects in the aquatic environment. Thus, every care must be taken to avoid its release and the subsequent contamination of the aquatic environment.

13. DISPOSAL CONSIDERATIONS

DISPOSAL OF WASTE	: Waste should be disposed of in accordance with Local, State or National requirements.
DISPOSAL OF CONTAINERS	: Empty containers should be disposed of in accordance with Local, State or National requirements.
UK SPECIAL WASTE REGULATIONS, 1996	: <u>Hazard Code</u> : H6 - Toxic, H14 - Ecotoxic <u>Components making the waste special and their concentrations</u> : % w/w Bromadiolone 0.1 Bitrex™ ≤ 2.5
NOTE FOR DISPOSAL	: Disposal should be in accordance with local, State or National requirements. For further advice about disposal in the UK, contact the local office of the Environment Agency (England and Wales) or Scottish Environment Protection Agency. Local rate from anywhere in the UK: 0645 333111.

14. TRANSPORT INFORMATION (International unless otherwise indicated)

<u>UN NUMBER</u> : Not required.	<u>UK HAZCHEM EAC</u> : Not required.	<u>ADR HIN</u> : Not required.	<u>ADR SIN</u> : Not required.
<u>UK CDGRoad Transport Category</u> : Not required.	<u>Tremcard Reference No.</u> : Not required.	<u>IMDG EMS</u> : Not required.	<u>IMDG MFAG Table No.</u> : Not required.
<u>UK CDGCPL2 CARRIAGE</u> : LIMITED QUANTITY EXEMPTIONS : SPECIAL REQUIREMENTS : LABELS :	Not classified. Not required. Not required. Not required.		
<u>IMDG (SEA) CARRIAGE</u> : LIMITED QUANTITY EXEMPTIONS : SPECIAL REQUIREMENTS : LABELS :	Not classified. Not required. Not required. Not required.		
<u>ADR (ROAD) CARRIAGE</u> : LIMITED QUANTITY EXEMPTIONS : SPECIAL REQUIREMENTS : LABELS :	Not classified. Not required. Not required. Not required.		

15. REGULATORY INFORMATION

INDICATION OF DANGER	HEALTH AND SAFETY INFORMATION (see also box 2)
X_n - HARMFUL :	Harmful in contact with skin and if swallowed.
STATUTORY PHRASES :	For use only by professional operators. For use only in rodent control by professional operators. Avoid all contact by mouth. Wear synthetic or rubber gloves when handling the concentrate. When using do not eat, drink or smoke. Prevent access to bait by children, birds and non-target animals, particularly dogs, cats, pigs and poultry. Search for rodent bodies (except when used in sewers) and dispose of safely (e.g. burn or bury). Do not dispose of in refuse sacks or on open rubbish tips. Remove all remains of bait and bait containers after treatment (except when used in sewers) and dispose of safely (e.g. burn or bury). Do not dispose of in refuse sacks or on open rubbish tips. Do not prepare bait where food, feed or water could become contaminated. Do not place bait where food, feed or water could become contaminated (except when used in sewers). READ ALL PRECAUTIONS BEFORE USE.
LEGISLATION :	This product is approved, in the UK under the Control of Pesticides Regulations (COPR) 1986 for use as directed. HSE 6723 This product is not classified, in the UK, under the Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles CDGCPL2 Regulations 1996, as dangerous for carriage.

16. OTHER INFORMATION

<p>The information given on this Safety Data Sheet (SDS) does not constitute an assessment in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations 1999.</p> <p>Changes have been made to the content of boxes 1, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 06.</p> <p>Bitrex TM is a registered trademark of Macfarlan Smith Ltd.</p>
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<p>Before using any product, ensure that you read and understand its label.</p> <p>The information contained in this safety data sheet is, to the best of our knowledge and belief, accurate and reliable at the time of publication. The information relates only to the specific material designated in this safety data sheet and may not be valid for such material if it is used in combination with any other material(s) or any other use than that specified herein. Rentokil Initial UK Ltd is not liable for the use of this product for any other purpose than that described in this safety data sheet. This does not affect your statutory rights. It is the user's responsibility to satisfy him/herself as to the suitability in completeness of such information for his/her own particular use.</p>

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